



SUBMISSION TO INQUIRY

**House of Representatives
Industry, Science and Innovation Committee
inquiry into
International Research Collaboration**

Submission by
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INTRODUCTION

It is an exciting coincidence to see this inquiry called merely a month since the Cooperative Research Centre Association's (CRCAs) return from a four week visit to northern Europe – a visit that centered around investigating the potential for international research collaborations!

The CRCA is the independent representative body of all Cooperative Research Centres established through the Australian Governments' CRC Program. It is the united voice of the CRCs, and the principal non-Government advocate for end-user driven collaborative research in Australia.

From 4th to 28th October 2009 the CEO of the CRCA, Mr Michael Hartmann, was engaged in meetings with high level officials through the United Kingdom, Finland, the Netherlands, Germany, Denmark and the European Union Commission in Belgium.

The tour was undertaken in direct response to Priority 6 of the National Innovation Priorities as detailed in the Australian Governments' "Powering Ideas" agenda document :

Priority 6 : Australian researchers and businesses are involved in more international collaborations on research and development

... combined with the new emphasis on international engagement as articulated in the November 2008 CRC Program Guidelines :

2.4.1 – CRCs are encouraged to engage globally. Co-investment with international organisations is particularly encouraged.

The tour had three key objectives :

- *To See* : To look at collaborative research programs in other countries and consider how the CRC Program rates in comparison and to see if there are any good ideas we could adopt;
- *To Spruik* : To educate those countries about the CRC Program, and
- *To Seek* : To explore the will and potential for collaborations with Australia on large-scale, industry-driven applied science, with particular focus on the CRC Program as the optimal vehicle.

The CEO met with around 70 executives during the course of the visit, predominantly high-level government officials or research centre managers. Upon return, the CRCA has produced a report and held meetings with Minister Carr's office, the CRC Branch and International Branch of the Department of Innovation, Industry, Science and Research (DIISR), the Group of Eight, Universities Australia, the Forum for European–Australian Science and Technology Cooperation (FEAST), and the Embassies or High Commissions

of the United Kingdom, the Netherlands, Germany and Denmark. A summary of the tour also appeared in the 16th November edition of the Australian Financial Review.

As stated above, this inquiry is a terrific coincidence. The CRCA welcomes the inquiry and is eager to present the outcomes of this visit to the Committee.

In a nutshell, the visit concluded that the CRC Program is the benchmark for end-user driven, collaborative applied science throughout the world. There are excellent opportunities whereby international research engagement may occur via the CRC Program. However there are significant impediments, and in particular Australia needs to rethink its value proposition if it is to make a strong case that will convince other countries to engage with it.

Some more detail is presented in the following discussion, however the attached report provides much more background information and the rationale behind the conclusions.

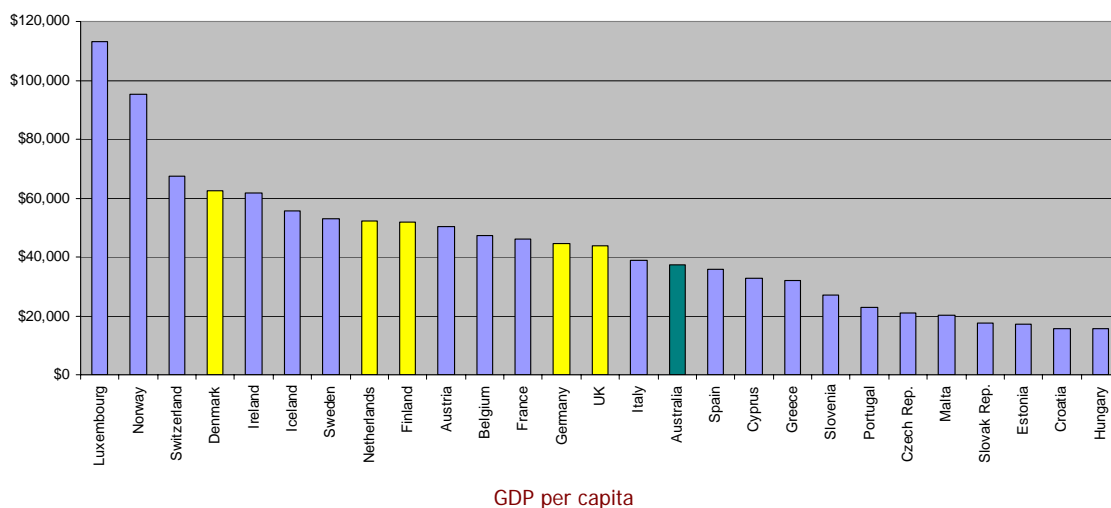
The CRCA would be pleased to present an overview of this report to the Committee.

DISCUSSION

From 4th to 28th October 2009 the CEO of the CRCA, Mr Michael Hartmann, was engaged in meetings with high level officials through the United Kingdom, Finland, the Netherlands, Germany, Denmark and the European Union Commission in Belgium.

Why those countries?

These countries were chosen simply because they are amongst those that we naturally identify as “innovative” or “innovation leaders”. Countries like Finland for example are often placed on a pedestal and referred to as the benchmark for innovation nations. The following graph adds further credence to the choice of countries, showing their ranking on the level of Gross Domestic Product per capita, with Australia included therein for means of comparison :



Essentially, the logic behind the selection of these countries was *“if it can be found anywhere in the world, it will be found here.”* Naturally logistics were also a serious influencing factor. Indeed there are other countries that could or should have been visited, however time constraints, cost and practicality had to be considered.

How were the visits organised?

With the Australian Governments’ new emphasis on international research collaboration, and in the drive to continue to advocate the CRC Program and be in the best position to influence its continued evolution, the CRCA Board agreed to fund the month long visit by the CEO. It is important to note that the visit was funded 100% by the CRCA, those funds being derived from the membership dues of the CRCs.

Networks within the relevant Embassies and High Commissions in Canberra were then utilised to organise the meetings. These were aimed at the highest level possible, with the aim being to meet with people who were in the position to influence policy.

While this was a CRCA initiative, other organisations were kept informed of developments and utilised as sources of advice. These included DIISR, the Chief Scientist, CSIRO International, FEAST and the CRCs. The DIISR post in Brussels also assisted greatly in organising meetings in Germany and Brussels, and were a tremendous source of information and discussion.

What are the overall Conclusions

The tour report is attached and as a consequence the detail will not be replicated in this submission. It is however important to reiterate the overall conclusions, at least in summary.

1. Australia should be very proud of the CRC Program. The rest of the world is only just now starting to catch up with the concepts first established by Chief Scientist Ralph Slatyer back in 1991. The CRC Program was a bold initiative back then, and remains the benchmark for end-user driven, collaborative applied science throughout the world. There are other collaborative programs in existence that are similar in many ways to the CRC Program, but none are the same – particularly with regard to sheer size, amount of funding, and most importantly the fact that the research foci in CRCs are decreed by the end-user partners. In other countries these foci are defined by the Governments with the end-users then fitting their needs into those parameters.
2. Nonetheless, there are still concepts in these other Programs that are worth consideration for Australia, particularly as we now work to identify a practical route for the continuation of successful collaborations that were born through the CRC Program but which, in accordance with the current CRC Program Guidelines, will soon no longer be eligible for further funding through the CRC Program budget.
3. Initiatives aimed at facilitating international research collaboration feature in the policies of Governments throughout the European Union (EU). This behaviour is driven by the Lisbon Strategy (2005) where member states agreed to increase their investment in innovation to 3% of GDP. As a catalyst, the EU invested heavily in its Framework Program for Research and Development. This Program received a major funding boost (from €18 billion to €50 billion) to assist countries meet the Lisbon Strategy targets and to nurture research collaboration between member states.
4. While international research collaboration is a key topic in Europe, its employment is very Euro-centric. Many countries limit their definition of “international” to other countries within the EU. For many, Australia does not feature.
5. The fact that Australia doesn’t feature highly in the international research collaboration policies of EU countries is not however due to a lack of will or desire. Rather, it is the question of “why?”. Why should an EU country collaborate with Australia when Australia is not a member of the EU and is not eligible to receive Framework Program funding?

6. A major impediment to EU research engagement with Australia remains the tyranny of distance (even despite the internet age). Time difference is one thing, but the main inhibitor is the 23 hour+ airplane flight.
 7. Australia needs to rethink its value proposition if it is to attract European research engagement. It is already well recognised that Australia has excellent scientists and facilities, but that is not enough of an attraction to overcome the treachery of the aircraft flight.
 8. If Australia wants to attract international research collaborators, it should market itself as a “unique laboratory”, emphasising the features (both natural and more importantly social) that mean that work and experiments can be conducted here than for a myriad of reasons (from industrial to historical) cannot be undertaken in Europe.
 9. Australia’s CRC Program is ideally positioned to become the primary conduit for international, end-user driven, applied science collaborations.
 10. Of all countries visited, one stands out as a key opportunity for Australia. Denmark is progressing to establish itself and the “powerhouse of innovation”. In doing so, its outlook for collaboration is global rather than international. Denmark wants to work with Australia (a consequence driven by links to the Royal family) and is not frightened by the tyranny of distance. In the area of clean energy in particular there are opportunities for collaboration, and great interest in doing so. Denmark are developing an excellent system for innovation, yet the crucial missing piece is a means of allowing end-users to define the research needs. There is a lot to be gained from working together, particularly through the CRC Program. An invitation should be extended to the Danish Science Minister as a matter of priority to visit Australia and learn about how we undertake end-user driven, collaborative applied science.
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